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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,157	06/15/2006	Antonello Pietrangelo	8907-109-999	7977
20583	7550	06/09/2009		
JONES DAY 222 EAST 41ST ST NEW YORK, NY 10017			EXAMINER GOLDBERG, JEANINE ANNE	
			ART UNIT 1634	PAPER NUMBER
			MAIL DATE 06/09/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/560,157

Applicant(s)

PIETRANGELO, ANTONELLO

Examiner

JEANINE A. GOLDBERG

Art Unit

1634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/26/09.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4, 11-21, 50-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1, 4, 11-14, 18-21 and 50-52 is/are allowed.
- 6) ☒ Claim(s) 15, 17 and 53 is/are rejected.
- 7) ☒ Claim(s) 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/888)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is in response to the papers filed February 26, 2009. Currently, claims 1, 4, 11-21, 50-53 are pending. Claims 1, 4, 11-14, 18-21, 50-52 are allowable.
2. Claims 15-17, 53 are rejected.
3. All arguments have been thoroughly reviewed but are deemed non-persuasive for the reasons which follow. This action is made FINAL.
4. This action contains new grounds of rejection necessitated by amendment.
5. Any objections and rejections not reiterated below are hereby withdrawn.
 - a. The enablement, written description and 112/2nd rejections have been overcome in view of the amendments to the claims and arguments presented.

Election/Restrictions

6. Applicant's election with traverse of Group I, Claims 1-4, 11-21, 50-52 in the paper filed July 8, 2008 is acknowledged.

The response asserts that there would be no burden to search Groups I-III together, citing 803. The response asserts that each mutation comprises a single nucleotide substitution of SEQ ID NO: 2 and is associated with non-HFE hemochromatosis. This argument has been reviewed but is not persuasive. This application was filed under 371 and considers whether there is a single inventive concept which links the inventions. Here, as noted in the initial lack of unity requirement, claims drawn to 10 nucleotides do not make a contribution over the art. Furthermore, Group I, II and III are directed to mutations in the ferroportin 1 gene.

Mutations within the ferroportin 1 gene were known in the art at the time the invention was made, including A77D. Thus, there is no special technical feature which links the inventions and Groups I, II, and III will not be rejoined.

Claims 5-10, 22-49 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the paper filed July 8, 2008.

The requirement is still deemed proper and is therefore made FINAL.

This application contains Claims 5-10, 22-49 drawn to an invention nonelected with traverse in the paper filed July 8, 2008. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144). See MPEP § 821.01.

Priority

7. This application is a 371 of PCT/EP04/51068, filed June 9, 2004. The application also claims priority to ILALY MI2003A001156, filed June 9, 2003.

It is noted that a translation of the foreign document has not been received.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 15, 17, 53 are rejected under 35 U.S.C. 102(b) as being anticipated by Fincher et al. (US 2008/0127376, May 29, 2008, filed September 20, 2000).

Fincher teaches nucleic acid molecules associated with plants. Fincher teaches SEQ ID NO: 15577 comprises 16 contiguous nucleotides of SEQ ID NO: 3 which comprise position 238. Specifically, Fincher teaches

Query Match 76.2%; Score 16; DB 4; Length 473;
Best Local Similarity 100.0%; Pred. No. 85;
Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy      233 TCATCAGTGACTGGGT 248
          |||
Db      87 TCATCAGTGACTGGGT 72
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Since Fincher teaches a nucleic acid comprising 16 nucleotides overlapping position 238 of SEQ ID NO: 3, Fincher teaches a polynucleotide as claimed.

9. Claims 15, 17, 53 are rejected under 35 U.S.C. 102(b) as being anticipated by Xu et al. (Genbank Accession Number AV649238, January 2002).

Xu teaches the nucleic acid is a homo sapien cDNA clone GLCBRH01. Xu teaches a nucleic acid comprising 18 contiguous nucleotides including position 238 of SEQ ID NO: 3.

Query Match 85.7%; Score 18; DB 2; Length 445;
Best Local Similarity 100.0%; Pred. No. 35;
Matches 18; Conservative 0; Mismatches 0; Indels 0;
Gaps 0;

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Qy      231 CATCATCAGTGACTGGGT 248
          |||
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Db 357 CATCATCAGTGACTGGGT 340

Conclusion

10. No claims allowable.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Jeanine Goldberg whose telephone number is (571) 272-0743. The examiner can normally be reached Monday-Friday from 7:00 a.m. to 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James (Doug) Schultz, can be reached on (571)272-0763.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For

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more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

The Central Fax Number for official correspondence is (571) 273-8300.

/Jeanine Goldberg/

Primary Examiner

June 10, 2009